Abstract

CALIBRATING CAPACITOR MISMATCH IN A PIPE-LINE ADC

An on-chip calibration circuit which can dynamically (i.e., in operational environment) measure the capacitor mismatch in an ADC using sampling capacitors to sample an input signal and a feedback capacitor (in combination with an amplifier) for amplification. The measured values can be used to generate accurate digital codes representing analog signal samples. The calibration circuit connects the capacitors to various voltage levels and measures the mismatch levels by examining various signals (e.g., the digital codes) generated in such situations.